CHILE

Energy Sector

Market Overview

The Chilean Electric Industry is 100% privately owned and is composed of three distinct segments:

- Generation: 31 companies
- Transmission: 5 companies
- Distribution: 36 companies

Four grids provide Chile's power:

- SING*: 99.6% Thermal generation
- SIC*: 56% Hydro generation, 44% Thermal
- Magallanes: 100% Thermal generation
- Aysen: 44% Thermal, 50% Hydro, 6% Wind Generation (Owned by US company PSEG)

* These two grids are the primary power generators for Chile.

Renewable Energy Resources

Resources	Energy Utilized	
	MWh/year	%
	4,770	46.3%
	45	0.4%
	4,998	48.5%
	458	4.4%
	36	0.3%
	10,307	**100.00**

Resources by Application	Energy Utilized	
	MWh/year	%
	3,788	36.8%
	1,191	11.6%
	5,168	50.1%
	160	1.5%
	10,307	**100.00**

Competitors

- European investors (primarily Endesa-Spain) dominate the generation and transmission segments of the electric power industry in Chile.
- European dominance is particularly strong in hydropower generation. There are a few meaningful U.S. players in the generation and distribution segments, e.g., AES, Sempra, PPL, and PSEG.
- There have been initial efforts on the part of US investors to explore the commercial potential of investments in geothermal generation in Chile.

Resources

- U.S. Department of Commerce, Energy Team, Martha Budwin: Martha.Budwin@mail.doc.gov
- U.S. Department of Commerce, I.T.A: Samuel Beatty Sam.Beatty@ita.doc.gov
- Chilean National Energy Commission: www.cne.cl
- Chilean Association of Alternative Renewable Energies-ACERA: www.acera.cl

- Chile consumed close to 46,113 GWh during 2004. This demand is served through renewable and non-renewable sources of energy. In fact, Chile has abundant renewable energy sources. However, the current level of exploitation is not enough to cover the country's growing demand.

- Wind power generation has only one distinct player, PSEG (US), with a modest 2 MW commercial facility located in southern Chile. CODELCO (Chile's state owned copper company) is studying the feasibility of a 38 MWh wind farm in the Atacama Desert of Northern Chile.

- Renewable energy sources, mostly hydropower, supply close to 38% of Chile's total energy demand. There is also one small facility in southern Chile that generates energy out of wind power. Based upon existing preliminary estimates, geothermal resources could supply a considerable amount (believed to be in the order of several thousand MW) of electric power currently generated from hydro and fossil resources.

- Non-Renewable energy sources are almost nonexistent in Chile, thus the country is a net importer of fossil fuels. Only 10% of the country's oil demand is produced domestically, while 100% of natural gas (NG) is imported exclusively from Argentina, producing a high degree of energy dependency on its Andean neighbor (about 35% of the energy matrix as of June 2004). See commercial opportunities below.

Renewable Sources	**Installed Gross Power** (as of 2004)
Hydropower	4.079 MW
Eolic/solar/micro-hydro/geo-thermal/biomass	5 MW
Wood and other	5 MW (est.)
Sub Total	*4.089 MW*

Non-Renewable Sources	**Installed Gross Power** (as of 2004)
Crude Oil/Coal	2.729 MW
NG*	4.026 MW
Sub Total	*6.755 MW*

Total Energy Sources	**10.844 MW**

*In June 2002, consumers used 78,457,770 m3 of natural gas.

Commercial Opportunities

- The majority of Chile's natural gas and oil is imported from just three countries. Because of recent supply shortages, particularly reduced supplier of Argentine natural gas, the Chilean state owned oil company ENAP is conducting a study with the financial advisory of Citicorp (U.S.) to examine the feasibility of developing a re-gasification plant --5 million cubic meter/day-- to be fed with LNG from other sources.

- The Rural Electrification Program created in 1994, aims to improve the quality of life in Chile's rural areas through the development of better electricity service and energy supply, and also to increase the use of renewable energy:

  - Micro-hydropower plants (smaller than 10 MW)
  - Solar (electricity and communication)
  - Wind (electricity)

We hope you find this information useful. If you would like further information, please contact **Carlos.Capurro@mail.doc.gov**, the CS Santiago Energy Specialist. Visit our website at **www.buyusa.gov/chile** to discover other commercial opportunities in Chile. Completed May 2005.